

**TABLE S1** Strains used in this study.

Strain	Parental strain	MTL	Genotype	Reference
SC5314	-	a/α	Wild type	(1)
SC5314 <i>efg1Δ/Δ</i>	SC5314	a/α	<i>efg1::FRT/efg1::FRT</i>	(2)
SC5314mChH <i>efg1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	(2)
SC5314 <i>wor1Δ/Δ</i>	SC5314	a/α	<i>wor1::FRT/wor1::FRT</i>	This study
SC5314 <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT</i>	This study
SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ wor1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P37039	-	a/α	Wild type, clinical isolate	(3)
P37039 <i>efg1Δ/Δ</i>	P37039	a/α	<i>efg1::FRT/efg1::FRT</i>	(2)
P37039mChH <i>efg1Δ/Δ</i>	P37039 <i>efg1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	(2)
P37039 <i>wor1Δ/Δ</i>	P37039	a/α	<i>wor1::FRT/wor1::FRT</i>	This study
P37039 <i>efg1Δ/Δ wor1Δ/Δ</i>	P37039 <i>efg1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT</i>	This study
P37039mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	P37039 <i>efg1Δ/Δ wor1Δ/Δ</i>	a/α	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
a/- SC5314	SC5314	a/-	<i>MTLa1::FRT, MTLa2::FRT</i>	This study
a/- SC5314mChH	a/- SC5314	a/-	<i>MTLa1::FRT, MTLa2::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
a/- SC5314 <i>efg1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT</i>	This study
a/- SC5314 <i>wor1Δ/Δ</i>	SC5314 <i>wor1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, wor1::FRT/wor1::FRT</i>	This study
a/- SC5314mChH <i>efg1Δ/Δ</i>	SC5314mChH <i>efg1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
a/- SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
-/α SC5314	SC5314	-/α	<i>MTLa1a2::FRT</i>	This study
-/α SC5314mChH	-/α SC5314	-/α	<i>MTLa1a2::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study

-/α SC5314GFPS	-/α SC5314	-/α	<i>MTLa1a2::FRT, OP4/op4::OP4p-GFP-CaSAT1</i>	This study
-/α SC5314 <i>efg1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT</i>	This study
-/α SC5314 <i>wor1Δ/Δ</i>	SC5314 <i>wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, wor1::FRT/wor1::FRT</i>	This study
-/α SC5314mChH <i>efg1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
-/α SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p- mCherry-CaHygB</i>	This study
-/α SC5314 <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314 <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT</i>	This study
-/α SC5314GFPS <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p- GFP-CaSAT1</i>	This study
-/α SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p- mCherry-CaHygB</i>	This study
-/α SC5314 OP4- mChH HSP31-GFP <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α SC5314mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p- mCherry-CaHygB, HSP31/hsp31::HSP31p- GFP-CaSAT1</i>	This study
a/- P37039	P37039	a/-	<i>MTLa1::FRT, MTLa2::FRT</i>	This study
a/- P37039mChH	a/- P37039	a/-	<i>MTLa1::FRT, MTLa2::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
a/- P37039 <i>efg1Δ/Δ</i>	P37039 <i>efg1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT</i>	This study
a/- P37039mChH <i>efg1Δ/Δ</i>	P37039mChH <i>efg1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT, OP4/op4::OP4p- mCherry-CaHygB</i>	This study
a/- P37039mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	P37039mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	a/-	<i>MTLa1::FRT, MTLa2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
-/α P37039	P37039	-/α	<i>MTLa1a2::FRT</i>	This study
-/α P37039mChH	-/α P37039	-/α	<i>MTLa1a2::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
-/α P37039GFPS	-/α P37039	-/α	<i>MTLa1a2::FRT, OP4/op4::OP4p-GFP-CaSAT1</i>	This study
-/α P37039 <i>efg1Δ/Δ</i>	P37039 <i>efg1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT</i>	This study
-/α P37039mChH <i>efg1Δ/Δ</i>	P37039 <i>efg1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study

Table S1

-/α P37039mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	P37039mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	-/α	<i>MTLa1a2::FRT, efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P37005	-	a/a	Wild type, clinical isolate	(4)
P37005 <i>wor1Δ/Δ</i>	P37005	a/a	<i>wor1::FRT/wor1::FRT</i>	This study
P37005mChH	P37005	a/a	<i>OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P37005GFPs	P37005	a/a	<i>OP4/op4::OP4p-GFP-CaSAT1</i>	(5)
P37005 <i>efg1Δ/Δ</i>	P37005	a/a	<i>efg1::FRT/efg1::FRT</i>	This study
P37005mChH <i>efg1Δ/Δ</i>	P37005 <i>efg1Δ/Δ</i>	a/a	<i>efg1::FRT/efg1::FRT, MTLa1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P37005 <i>efg1Δ/Δ wor1Δ/Δ</i>	P37005 <i>efg1Δ/Δ</i>	a/a	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT</i>	This study
P37005mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	P37005 <i>efg1Δ/Δ wor1Δ/Δ</i>	a/a	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P37005 OP4-mChH HSP31-GFP <i>efg1Δ/Δ wor1Δ/Δ</i>	P37005mChH <i>efg1Δ/Δ wor1Δ/Δ</i>	a/a	<i>efg1::FRT/efg1::FRT, wor1::FRT/wor1::FRT, OP4/op4::OP4p-mCherry-CaHygB, HSP31/hsp31::HSP31p-GFP-CaSAT1</i>	This study
P94015	-	a/a	<i>efg1-/efg1-, clinical isolate</i>	(6)
P94015scEFG1	P94015	a/a	<i>efg1-/efg1-::EFG1p-scEFG1-CaSAT1</i>	This study
P94015scEFG1 <i>wor1Δ/Δ</i>	P94015 <i>wor1Δ/Δ</i>	a/a	<i>efg1-/efg1-::EFG1p-scEFG1-CaSAT1, wor1::FRT/wor1::FRT</i>	This study
P94015mChH	P94015	a/a	<i>efg1-/efg1-, OP4/op4::OP4p-mCherry-CaHygB</i>	This study
P94015 <i>wor1Δ/Δ</i>	P94015	a/a	<i>efg1-/efg1-, wor1::FRT/wor1::FRT</i>	This study
P94015GFPs <i>wor1Δ/Δ</i>	P94015	a/a	<i>efg1-/efg1-, wor1::FRT/wor1::FRT, OP4/op4::OP4p-GFP-CaSAT1</i>	This study

## REFERENCES

1. Gillum AM, Tsay EY, Kirsch DR. Isolation of the *Candida albicans* gene for orotidine-5'-phosphate decarboxylase by complementation of *S. cerevisiae* *ura3* and *E. coli* *pyrF* mutations. Molecular & general genetics : MGG. 1984;198(1):179-82.
2. Park YN, Conway K, Conway TP, Daniels KJ, Soll DR. Roles of the Transcription Factors Sfl2 and Efg1 in White-Opaque Switching in a/alpha Strains of *Candida albicans*. mSphere. 2019;4(2).

3. Pujol C, Messer SA, Pfaller M, Soll DR. Drug resistance is not directly affected by mating type locus zygosity in *Candida albicans*. *Antimicrob Agents Chemother*. 2003;47(4):1207-12.
4. Slutsky B, Staebell M, Anderson J, Risen L, Pfaller M, Soll DR. "White-opaque transition": a second high-frequency switching system in *Candida albicans*. *J Bacteriol*. 1987;169(1):189-97.
5. Park YN, Daniels KJ, Pujol C, Srikantha T, Soll DR. *Candida albicans* forms a specialized "sexual" as well as "pathogenic" biofilm. *Eukaryot Cell*. 2013;12(8):1120-31.
6. Wu W, Lockhart SR, Pujol C, Srikantha T, Soll DR. Heterozygosity of genes on the sex chromosome regulates *Candida albicans* virulence. *Mol Microbiol*. 2007;64(6):1587-604.